WHAT IS CLAIMED IS:

1. In a method for moving charged particles through a medium in a movement area comprising a trench of capillary dimensions using an electrical field with spaced apart electrodes to produce said field, the improvement comprising:

supporting said medium with an organic polymer substrate having a substantially uncharged surface.

2. A method according to Claim 1, wherein said organic polymer is polymethylmethacrylate, polycarbonate, polyethylene terephthalate or polystyrene and said organic polymer is optionally supported on glass.

3. A method according to Claim 2, wherein said charged particles are separated during said moving into a plurality of components.

4. A method according to Claim 1, wherein said charged particles are separated during said moving into a plurality of components.

5. A method according to Claim 1, wherein said medium is a polymer gel.

6. In a method for moving charged particles through a medium in a movement area comprising a trench of capillary dimensions using an electrical field with spaced apart electrodes to produce said field, the improvement comprising:

supporting said medium with a polymethylmethacrylate card.

7. A method according to Claim 6, wherein said capillary dimensions are an inner diameter of from 25 to 100μ.

8. A method according to Claim 6, wherein said electrical field is created by a plurality of electrodes at opposite ends of said trench and along said trench.

9. A device for moving charged particles through a medium employing an electrical field, said device comprising:

an organic polymer solid substrate having an upper surface, wherein said upper surface of said organic polymer is substantially uncharged;

a main trench of capillary dimensions in said substrate having opposite ends;

a pair of electrodes, with one electrode proximal to one end of said trench and the other electrode proximal to the other end of said trench;

means for connecting said electrodes to a source of electricity; and

means for introducing and removing liquid from said trench.

10. A device according to Claim 9 wherein said organic polymer is polymethylmethacrylate, polycarbonate, polyethylene terephthalate or polystyrene and said organic polymer is optionally supported on glass.

11. A device according to Claim 10, wherein said capillary dimensions are a diameter of from 25 to 100μ.

12. A device for moving charged particles through a medium employing an electrical field, said device comprising:

an organic polymer solid substrate having an upper surface, wherein said upper surface of said organic polymer is substantially uncharged;

a main trench in said substrate extending downward from said upper surface, having opposite ends, said trench having a depth of about 5 to 25μ and extending across said substrate ;

a pair of electrodes, with one electrode proximal to one end of said trench and the other electrode proximal to the other end of said trench;

means for connecting said electrodes to a source of electricity; and

ports for liquid transfer proximal to each end of said trench for liquid transport or a reservoir at each end of said trench.

13. A device according to Claim 12, wherein said organic polymer substrate is polymethylmethacrylate.

14. A device according to Claim 12, wherein said trench includes a gel for gel electrophoresis.

15. A device according to Claim 12, further comprising:

at least one lateral branch trench crossing said main trench; and at least one additional pair of electrodes, each additional pair proximal to opposite ends of each of said lateral branch trenches; and

means for connecting each of said additional pairs of electrodes to a source of electricity.

16. A device according to Claim 15, further comprising:

an electronic computer for controlling the electricity delivered to each of said electrodes connected to said electrode connecting means.

17. A device for moving charged particles through a medium employing an electrical field, said device comprising:

a polymethylmethacrylate card having an upper surface, wherein said upper surface of said substrate is substantially uncharged;

a main trench in said substrate extending downward from said upper surface, having opposite ends, said trench having capillary dimensions and extending across said substrate;

a pair of electrodes, with one electrode proximal to one end of said trench and the other electrode proximal to the other end of said trench;

at least one lateral branch trench crossing said main trench; and at least one additional pair of electrodes, each additional pair proximal to opposite ends of each of said lateral branch trenches;

means for connecting said electrodes to a source of electricity; and

ports for liquid transfer proximal to each end of said trench and each said lateral branch for liquid transport or a reservoir proximal to each end of said trench and each said lateral branch..

18. A device according to Claim 17, said device further comprising:

an electronic computer for controlling the electricity delivered to each of said electrodes connected to said electrode connecting means.

19. A device according to Claim 17, wherein said main trench contains a gel electrophoresis medium.

20. A device according to Claim 19, wherein said gel electrophoresis medium is polyacrylamide.

21. In a capillary electrophoresis device comprising a capillary and electrodes proximal to opposite ends of said capillary, the improvement which comprises:

a capillary of polymethylmethacrylate.